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10/031,046	01/11/2002	John Addink	100302.0016US1	8668

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EXAMINER

RODRIGUEZ, PAUL L

ART UNIT	PAPER NUMBER
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2125

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DATE MAILED: 06/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/031,046

Applicant(s)

ADDINK ET AL.

Examiner

Paul L Rodriguez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: .

### **DETAILED ACTION**

1. The amendment submitted in PCT/US00/22673 and also submitted with the instant application has been received and considered. Claims 1-24 are presented for examination.

#### ***Information Disclosure Statement***

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

#### ***Oath/Declaration***

3. The declaration submitted with the instant application claims foreign priority under 35 U.S.C. 119a-d to PCT/US00/22673, this is not a proper foreign priority claim. In effect the application is claiming priority to itself because the instant application as submitted is a 35 U.S.C. 371 application is based on the original filing of PCT/US00/22673. The foreign priority section of an oath or declaration would be used if the PCT document were claiming additional foreign priority. The oath or declaration as submitted is not defective, however applicant is not entitled to any additional priority other than to PCT/US00/22673.

#### ***Drawings***

4. The drawings are objected to because of the following:

Figure 3 shows reference number 26 partially cut off by the adjacent box.

Figure 3 has the label "Irrigation User Keypad" partly inside and outside the representative box.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "26" has been used to designate both "water flow data" and "flow sensor". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "27" has been used to designate both "water pressure data" and "pressure sensor". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 30. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in

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the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

8. The examiner has provided a number of examples of the drawing deficiencies in the above, however, the list of deficiencies may not be all inclusive. Applicant should refer to these as examples of deficiencies and should make all the necessary corrections to eliminate the drawing objections.

***Specification***

9. The disclosure is objected to because of the following informalities:

Page 6 lines 16-17 and 20 state “irrigation control interface 22”, figure 2 labels the irrigation control interface as 21.

Page 6 lines 17-18, state “...22 is provided for coupling...20 to...13”, figure 2 shows reference number 21 and 22 between 20 and 13.

Page 6 line 21 states “serial communication channel 21, figure 2 labels serial communications as 22.

Page 8 line 32 refers to “flow sensor 26”, reference number 26 previously “water flow data”.

Page 8 line 32 refers to “pressure sensor 27”, reference number 27 previously “water pressure data”.

Appropriate correction is required.

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10. The examiner has provided a number of examples of the specification deficiencies in the above, however, the list of deficiencies may not be all inclusive. Applicant should refer to these as examples of deficiencies and should make all the necessary corrections to eliminate the specification objections.

***Claim Rejections - 35 USC § 112***

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. Claim 22 recites the limitation "the predetermined parameters" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 1-17 and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (U.S. Pat 5,479,339) in view of Peek et al (U.S. Pat 6,343,255).

Miller teaches (claim 1) an irrigation system (abstract, figure 2, 3) comprising each of an irrigation controller (reference number 14) and a water application device (reference number 16,17) physically situated at a location of a user (abstract, col. 2 lines 54-59, "groundskeeper"), the controller at least partially controlling the water application device (col. 5 line 34 – col. 6 line 30), a distal computer remote from the user location (reference number 32, col. 4 lines 53-56), a first communication system that exchanges information between the irrigation controller and the distal computer (col. 4 lines 53-56, col. 5 lines 50-52), a second communication system that exchanges information between the irrigation controller and the user (col. 5 lines 52-63), a third communication system that exchanges information between the user and the distal computer (col. 5 lines 50-55), (claim 2) wherein the exchange of information between each of the irrigation controller and the distal computer, the irrigation controller and the user, the user and the distal computer are bi-directional (figure 3 shows all communication as bi-directional), (claim 3) further comprising a microprocessor disposed in the irrigation controller, that facilitates the exchange of information between the irrigation controller and the distal computer (reference number 25), (claim 4) further comprising a microprocessor disposed in a second unit separate from the irrigation controller, that facilitates the exchange of information between the irrigation

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controller and the distal computer (col. 5 lines 50-52, distal computer is a personal computer, containing a microcomputer), (claim 5) further comprising a storage device that stores data at the user location (reference number 27), (claim 9) wherein the second communication system comprises a dedicated link between the controller and a personal computer (col. 5 lines 52-60), (claim 10) a method of operating an irrigation system (abstract, col. 1 lines 7-12, col. 2 lines 54-59) comprising physically situating each of an irrigation controller (reference number 14) and a water application device (reference number 16, 17) at a location of a user (abstract, col. 2 lines 54-59, "groundskeeper"), utilizing the controller to at least partially control the water application device (col. 5 line 34 – col. 6 line 30), providing a first communication system comprising a public, packet switched network (col. 4 lines 60-67, telephone lines and network considered a public packet switched network when connected to computer, col. 6 lines 1-6), coupling the irrigation controller and a distal computer using the first communication system (col. 4 lines 53-67, col. 6 lines 1-6), coupling the irrigation controller and the user using a second communication system (reference numbers 33, 35, col. 5 lines 52-63), the user entering landscape irrigation operating information into the irrigation controller using the second communication system (col. 3 lines 16-19, col. 10 line 55 – col. 11 line 13), (claim 12) further comprising providing the controller with a microprocessor (reference number 25) programmed to receive additional information from the distal computer via the first communication system (col. 4 lines 53-67, col. 5 line 67 – col. 6 line 6), the microprocessor determining an irrigation schedule based at least in part on the landscape irrigation operating information from the user, and the additional information from the distal computer (col. 6 lines 31-58), (claim 13) further comprising providing the controller with local water usage data and the microprocessor



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determining an irrigation schedule based at least in part on the water usage data (col. 3 lines 35-39), (claim 14) wherein the step of determining an irrigation schedule further includes the microprocessor computing a desired quantity of water to be applied to a landscape at the user's location for a specific period of time (col. 3 lines 35-42, col. 10 line 55 – col. 11 line 55), (claim 15) wherein the period of time is at least one day (col. 11 lines 8-30), (claim 16) wherein the additional information from the distal computer includes weather data (col. 5 line 67 – col. 6 line 6) and further comprising the microprocessor computing an ETo value (col. 6 line 59 – col. 8 line 47), (claim 17) further comprising the microprocessor comparing the ETo value to the desired quantity of water applied to the landscape (col. 10 line 55 – col. 11 line 55), (claim 21) further comprising the microprocessor sending a warning to the user via the second communication system when an aspect of the irrigation system falls outside of a predetermined parameter (abstract, col. 3 lines 19-26, col. 6 lines 41-58), (claim 22) further comprising the microprocessor preventing an operation of the irrigation system when the irrigation system falls outside of the predetermined parameters (col. 6 lines 46-58, col. 10 lines 27-46) and (claim 23) wherein the information transmitted to the distal computer comprises a calculated estimate of water actually applied at a station for a time period (col. 11 lines 25-28).

Miller fails to teach (claim 1) a fourth communication system that exchanges information between the distal computer and a third party, wherein each of the first communication system, the third communication system, and the fourth communication system comprise a public, packet switched network (claim 2) exchange of information between the distal computer and a third party are bi-directional, (claim 6) wherein the second communication system comprises a public, packet switched network, (claim 7) wherein the first communication system comprises a

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two-way pager, (claim 8) wherein the first communication system comprises a web page interface, (claim 10) and the irrigation controller causing at least a portion of the landscape irrigation operating information to be transmitted to the distal computer using the first communication system, (claim 11) wherein the step of entering the landscape irrigation operating information comprises the user entering the landscape irrigation operating information into a personal computer, and the personal computer transmitting the information to the irrigation controller via the second communication system, (claim 19) further comprising coupling the user and the distal computer using a third communication system, (claim 20) further comprising coupling the distal computer and a third party using a fourth communication system and (claim 24) wherein the information transmitted to the distal computer further includes a relationship between the calculated estimate of water actually applied at a station for a time period, and a computed ETo for the station for the time period.

Peek et al teaches (claim 1) an irrigation system (figure 4, claim 1), a distal computer remote from the user location (reference number 188), a first communication system (service provider between 170 and 150), a third communication system (reference number 146) a fourth communication system that exchanges information between the distal computer and a third party (reference number 154), wherein each of the first communication system, the third communication system, and the fourth communication system comprise a public, packet switched network (reference number 150, col. 6 lines 27-32), (claim 2) wherein the exchange of information between each of the irrigation controller (considered the farmers computer 170) and the distal computer, the user and the distal computer and the distal computer and a third party, are bi-directional (figure 4 shows communication as bi-directional), (claim 6) wherein the second

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communication system comprises a public, packet switched network (user to controller, reference number 180 via 150, col. 8 lines 49-56) (claim 7) wherein the first communication system comprises a two-way pager (col. 8 lines 49-58, known pager functions), (claim 8) wherein the first communication system comprises a web page interface (col. 7 lines 47-50, figure 8, provide Internet interfaces for displaying data, considered a web page), (claim 10) a method of operating an irrigation system (claim 1), providing a first communication system coupling the irrigation controller and a distal computer (service provider between 170 and 150), the user entering landscape irrigation operating information (col. 4 lines 11-14, col. 7 lines 4-13), the irrigation controller causing at least a portion of the landscape irrigation operating information to be transmitted to the distal computer using the first communication system (col. 7 lines 4-13), (claim 11) wherein the step of entering the landscape irrigation operating information comprises the user entering the landscape irrigation operating information into a personal computer, and the personal computer transmitting the information to the irrigation controller via the second communication system (col. 4 lines 9-14, col. 7 lines 4-13), (claim 19) further comprising coupling the user and the distal computer using a third communication system (reference number 180), (claim 20) further comprising coupling the distal computer and a third party using a fourth communication system (reference number 156) and (claim 24) wherein the information transmitted to the distal computer further includes a relationship between the calculated estimate of water actually applied at a station for a time period, and a computed ETo for the station for the time period (col. 8 lines 9-48).

Miller and Peek et al are analogous art because they are both related to a system and method of performing irrigation control through communications with distal computers.

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the public, packet switched network server based communications of Peek et al in the irrigation controller of Miller because Peek et al teaches an irrigation system that can provide accurate microclimate information from a plurality of weather stations, can receive notification if weather conditions could cause damage to crops, and receives customized information that reflects the particular crop, field configurations and weather conditions, that will assist the user with proper application of irrigation to crops, which would increase crop production and minimize crop losses (col. 3 line 58 – col. 4 lines 32).

15. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (U.S. Pat 5,479,339) in view of Peek et al (U.S. Pat 6,343,255) as applied to claim 10 above, and further in view of Hirsch (U.S. Pat 4,396,149).

Miller as modified by Peek et al teaches an irrigation system connected by the Internet as recited in claims 1-17 and 19-24 for the reasons above, differing from the invention as recited in claim 18 in that their combined teaching lacks wherein the water usage data includes water pressure data.

Hirsch teaches an irrigation control system wherein the water usage data includes water pressure data (col. 4 lines 8-65).

Miller as modified by Peek et al and Hirsch are analogous art because they are both related to irrigation systems.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the pressure data of Hirsch in the irrigation control system of

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Miller as modified by Peek et al because Hirsch teaches that collected data (from pressure sensors) is used by the irrigation computer to calculate an optimal irrigation strategy and provides the user with the best decisions with regards to irrigation (col. 4 lines 60-65). Also teaches that the irrigation control system improved upon previous methods that were designed to improve the efficiency of irrigation and minimizes the burden of operators. The system provides optimal irrigation to growing plants (col. 1 lines 64-67).

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nelson et al (U.S. Pat 6,529,589) – teaches an Internet communication configuration that is used to control automation equipment, automation equipment includes irrigation controllers.

Collins (U.S. Pat 6,402,048) – teaches an irrigation system that connects controllers via the Internet.

Oliver (U.S. Pat 5,870,302) – teaches an irrigation control system with distal computers, also teaches the use of pager communications.

WO 01/22177 A1 – teaches a method of remote management of irrigation sites that communicates over the Internet.

Press Release from PALM.COM that lists the PALM VII as having two-way paging capability.

Data sheet from PALM.COM that shows paging software for the PALM VII.

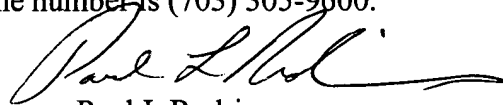
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17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul L Rodriguez whose telephone number is (703) 305-7399.

The examiner can normally be reached on 6:00 - 4:30 T-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P Picard can be reached on (703) 308-0538. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.



Paul L Rodriguez  
Examiner  
Art Unit 2125

PLR  
June 13, 2003